The background of the cover is a photograph of a tropical atoll. In the foreground, a small wooden boat with several people on board is moving across the dark blue water, leaving a white wake. In the middle ground, a narrow strip of land is visible, covered with a dense line of green palm trees. The sky above is filled with large, white, fluffy clouds, with some darker patches suggesting an overcast or stormy atmosphere.

*Journal of*  
**MICRONESIAN FISHING**  
Special Edition

Protecting the  
Biodiversity  
of Ngulu Atoll

**INSIDE:** Man and Turtle in the Caroline Islands  
Grass roots efforts to combat dynamite fishing in Chuuk and more ...

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*Heading out to begin the installation of a surveillance radar tower to protect the recently established Ngulu Atoll Marine Protected Area from illegal fishing vessels. Photo Courtesy of Yap Community Action Program.*

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# EDITORS PERSPECTIVE:

*Partnering to meet the Micronesia Challenge, moving toward conservation*



The European Union (EU) provided to the FSM a total allocation of €6.2 million under the 9th European Development Fund (2002-2008). A portion of this amount (15% of A Envelope) was mainstreamed for activities in the areas of conservation and environmental protection.

On May 15, 2007, the Micronesia Conservation Trust ([www.ourmicronesia.org](http://www.ourmicronesia.org)) was awarded the services contract to administer the Conservation and Environmental Protection Programme (CEPP) and, since then, has met its objective to conserve and protect the nation's environment through strengthening the delivery of services by Non-State Actors (NSA) in the area of conservation and environmental protection.

Through a Call for Proposals (CFPs), a technical grant procedure, NSAs were able to submit full proposals for projects that addressed the FSM National Biodiversity Strategy & Action Plan (NBSAP) thematic areas in ecosystem management and human resources & institutional development. A total of 14 projects were

selected for funding.

It is with great pride to see the results of the many achievements of the CEPP programme. More than 40 job opportunities were provided, and projects were implemented within 44 Areas of Biological Significance (ABS) thus contributing significantly to the Micronesia Challenge.

All NSAs associated with the programme have an improved technical capacity in areas of conservation and environmental protection and, it is quite evident, that they have also achieved much in their efforts to create awareness for conservation and environmental protection issues facing our islands today. More significant, they have shared in the struggle to combat these issues head-on.

Thus, I would like to take this opportunity to congratulate the grantees for their hard work and determination. Kosrae Conservation & Safety Organization (KCSO), Yela Environment Landowners Authority (YELA), Conservation Society of Pohnpei (CSP), Micronesian Seminar (Mic-

Sem), Marine and Environmental Research Institute of Pohnpei (MERIP), College of Micronesia-FSM National Campus Marine Science Program, Pohnpei Farmers Association (PFA), Chuuk Conservation Society (CCS), Chuuk Women Council (CWC), Society for Historic Investigation and Preservation (SHIP), Yap Community Action Program (YapCAP), Kaday Community & Cultural Development Organization (KC&CDO), Yap Institute of Natural Science (YINS), and Yap Networker News (YNN) for their exceptional work in implementing the projects despite the many challenges faced.

It is not the projects themselves that bring success; rather it is strength of will and a determined mind.

Kulo Mulalap, Kalahngan en kupwromwail, Kinisou Chapur, Kammagar, Thank you very much!

Fabian Nimea  
National Authorizing Officer  
National Government  
Federated States of Micronesia

# Nimpal Channel Marine Conservation Area Surveillance & Enforcement

Supported by the European Union Development Fund



(Above) The surveillance team for the Nimpal Channel Marine Conservation Area. Photo courtesy of Nimpal community.

## BY BERNA GORONG

Located on the central west side of Yap's main island lies the Nimpal channel, one of eight major channels around the main island of Yap. The villages of Okaw and Kaday within the Weloy municipality own and share traditional fishing rights within and around the Nimpal channel, the community's traditional fishing grounds.

Responding to observations that the fishing grounds are no longer as bountiful as in the past, the two villages pulled together to address overfishing within their fishing grounds and took action in locally managing their marine resources.

The joint community initiative established the Nimpal Channel Marine Conservation Area, setting aside about one-third of its fishing grounds as a conservation zone where no fishing is allowed,

even by local, non-commercial fishermen. The conservation area encompasses the most productive grounds including the Nimpal Channel, adjacent outer reefs and inner reef flats as well. The total estimate area conserved is 77.5 hectares. In order to make the community decision public, a declaration of the conservation area was signed by the village chiefs in May 2008.

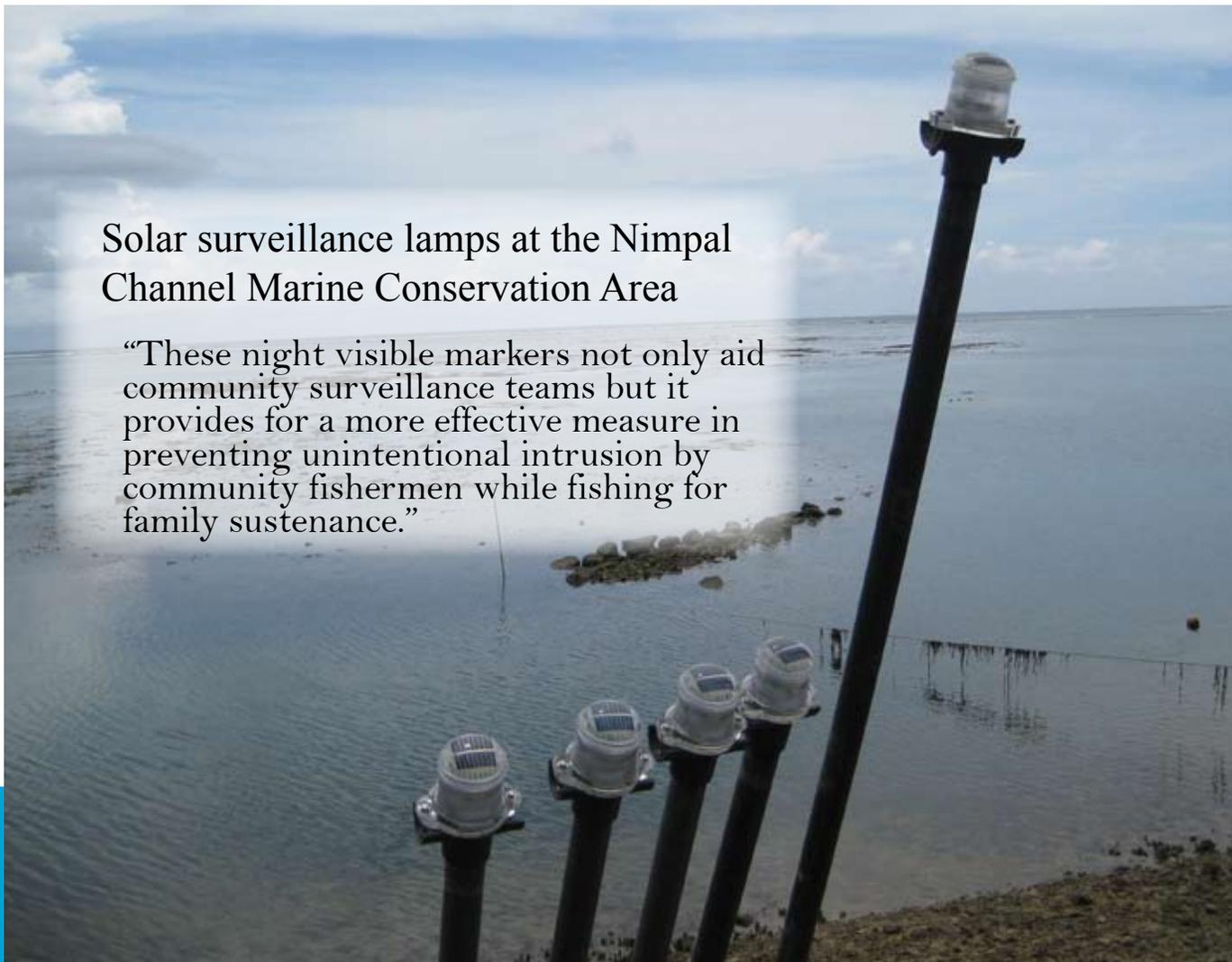
So who enforces the community decision and ensures community imposed guidelines are respected? The communities themselves. Through funding assistance from the European Commission, the communities have installed solar powered marine beacons to aid visibility of the protected area boundaries, especially at night when most fishing activities are done in Yap. These night visible markers not only aid community

surveillance teams but it provides for a more effective measure in preventing unintentional intrusion by community fishermen while fishing for family sustenance.

The Nimpal initiative strives to strengthen traditional village alliances and revitalize traditional practices of resource management. This is done by supporting and empowering traditional village communities to meld new techniques and methods with age old environmentally sustainable methods of resource management. Thus this project not only protects the natural environment that is slowly becoming misused by a majority of people, but also the social and traditional ways of the Yapese culture that are constantly pressured by waves of outside influences. ■

## Solar surveillance lamps at the Nimpal Channel Marine Conservation Area

“These night visible markers not only aid community surveillance teams but it provides for a more effective measure in preventing unintentional intrusion by community fishermen while fishing for family sustenance.”



*(Clockwise from left) Solar surveillance lamps at the Nimpal Channel Marine Conservation Area. Children of the community; conservation work aims to protect resources for generations to come. Photos courtesy of Nimpal.*



# Protecting the Biodiversity of Ngulu Atoll

Yap State, Federated States of Micronesia



*(Above) Team heads out to Ngulu Atoll Marine Managed Area. Photo courtesy of Yap Community Action Program (CAP).*

BY VANESSA FREAD

Ngulu is a large (438 km<sup>2</sup>) coral reef atoll located in the southwest of Yap State's waters, geographically between Yap and Palau, and politically belonging to Yap, Federated States of Micronesia (FSM). Major features include five islands, a small number of patch reefs, 16 passes, and a large submerged eastern reef edge. The five islands support native coastal vegetation as well as nesting sea bird and sea turtle populations. Due to its geographic isolation and geology, only 167 corals and 379 fish species have been recorded, however flourishing populations of both exist. Abundances of many marine resources are rarely found in- such high densities throughout most of the other Caroline Islands.

The location of the atoll, the distribution of landmasses, and sparse human settlement create ideal opportunities for conservation. However, the proximity of the atoll to southeast Asian fishing fleets provides for the greatest illegal fishing threats. The most recent ecological assessment indicated



*(Above) Chief Mike Ragmau of Ngulu Atoll. Photo courtesy of Yap CAP.*

that the coral reef habitats of Ngulu Atoll remain healthy and intact, however the fisheries resources were being influenced by overharvesting from both unchecked and/or unauthorized vessels. Like any ecosystem, take away one major component and the result is reduced resiliency, or reduced recov-

ery from natural disturbances that continue to influence Ngulu's coral reefs, that could eventually compromise the building blocks of the coral reef ecosystem.

Today, in addition to the sparse population living on the atoll, many people from Ngulu live on the main island of Yap for better public services and economic opportunities, frequenting the atoll during the summer months. Despite the distributed human population, a strong involvement of the traditional leaders of Ngulu who are concerned about the management of Ngulu Atoll and its resources, remains. It was this traditional leadership body that first requested for Yap Community Action Program (Yap CAP, a non-governmental organization based on Yap to assist the people) to begin assisting the local community improve the management of Ngulu in 2005. Community participation and support for any proposed project is vital on Yap, as nearly all land and near-shore reefs are privately owned. Yap CAP typically serves as the conduit between local communities wanting enhanced environment programs and



(Above from left) Community center and tower; Installing the radar system; Top of the radar tower. (Below) Moving the cement mixer. Photos courtesy of Yap CAP.

outside donors that can provide financial and technical support. Through this vector, Ngulu begun receiving assistance from the European Union Conservation and Environmental Protection Program, administered by the Micronesia Conservation Trust (MCT), to improve their local management strategies and their ability to identify and report illegal fishing.

With these funds we first completed a management plan for the Ngulu Atoll Marine Managed Area that was driven by local, community-level decisions. The top priority activity identified in the plan was to develop a radar-based surveillance system at Ngulu Atoll; indeed our most ambitious project to date. In addition to bringing the technology to Ngulu, a strategy for the surveillance and enforcement program was also completed. Building upon this success support by EU funds, a second grant was awarded from the German Ministry for the Environment Nature Conservation and Nuclear Safety for project implementation and the radar system training and operation. In late 2009, the radar tower and all associated support equipment were installed at the site. Remaining activities include finalizing the operation of the radar station and training local residents in its use and adequate record keeping.

The Ngulu community and leadership are most grateful for the support and financial assistance they are receiving for this effort. A conservation effort they strongly feel is important and is worth investing in and developing for the future of their people, children,



and the world. It is our sincere hope that the success of our combined, current efforts in Ngulu might also be applied to other outer islands of Yap State, FSM. The keys to success were: 1) initiating community-based management efforts to better protect marine resources at the local level, 2) identifying pressing needs that are beyond the capacity of the local communities, 3) gaining positive partnerships with Yap CAP, and 4) gaining technical and financial resources needed to implement the needed management

actions. For Ngulu, the reduction of marine resource theft and unsustainable and/or destructive fishing practices will certainly benefit marine biodiversity and coral reef resiliency.

In today's world where unpredictable consequences of climate change threaten our normal weather patterns and bring more frequent disturbance to our reefs, it is imperative that local stressors are minimized. Accordingly, these efforts aim to keep our functional fish stocks healthy. ▣

#### ABOUT YAP COMMUNITY ACTION PROGRAM

The Yap Community Action Program was founded in 1979, in Yap State, FSM, with the goal of helping rural communities raise their standard of living. In recent years, with the many complications of modern life pounding on Yap's shores, the organization's mission has grown as the demands on those same communities have grown. Yap CAP is a registered non-government, non-profit organization, originally established as a federally funded non-government organization under the UN Trust Territory of the US.

Yap Community Action Program (Yap CAP)  
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# MAKING CHANGE IN CHUUK

## Shaping a future with locally managed marine areas

*(Above from left) Local fishermen in mangroves; Saramen Chuuk Academy students with parrotfish. Photos courtesy of the Federated States of Micronesia's National Government.*

BY DALINA NERO

Dynamite fishing using the unexploded World War II ordnance left in Chuuk's Lagoon continues to be a major problem for our state. Destructive dynamite fishing not only leads to unselective, overharvesting of fish populations, but also destroys the coral habitat that provide food and shelter for the fish themselves. And, as many know, changing bad habitats that provide personal gain is very difficult to do.

At Chuuk's Earth Day celebration we launched an awareness campaign against dynamite fishing in the lagoon waters. The campaign was funded through the European Union and managed by the Federated States of Micronesia's National Government under the Conservation and Environment Protection Program which is housed by the Micronesia Conservation Trust.

Our initial approach was to get support from the communities in Chuuk to begin to approach the dynamite fishing problem. Stakeholder meetings and community consultations were held with participants ranging from municipal government mayors, village chiefs, resource owners, local fishermen, market owners, community based organizations and youth and women groups. At these initial meetings our first goal was to improve their understanding of the situation and gain support for desirable, improved conditions. After one year of informal consultations we officially launched our public awareness campaign at Earth Day 2010.

At the festivities Chuuk Conservation Society (CCS) joined efforts with several other non-profit partners and government agencies. Notably, this outreach event also included the staff and students of Saramen

Chuuk Academy (SCA) who have been instrumental in developing radio programs on the negative impacts of dynamite fishing.

Our goal for the campaign is to increase the local communities' understanding of their role in addressing the negative impacts of dynamite fishing. We promote enhanced traditional and sustainable marine conservation through the establishment of things like Locally Managed Marine Areas (LMMAs), that rely upon community-based decisions. Traditional marine conservation is still done in Chuuk through "mechen" or closure of harvesting in marine areas when the resources need time to grow. The concept of the LMMA integrates scientific approaches with traditional conservation practices. This is particularly relevant for Chuuk because marine resources are all community owned. The scientific aspects include, but are not limit to, underwater



*(Above) Napoleon Wrasse mascot for project. (Below counterclockwise) Community center; sponge farm; students from Saramen Chuuk Academy; local fishermen. Photos courtesy of the Federated States of Micronesia's National Government.*

surveys, data analysis, and zoning. Based on these data, communities will understand where successes have become evident and where challenges still reside.

The expected output of our initial EU funded efforts is to establish Parem island as the first Locally Managed Marine Area in Chuuk State. Parem is located on the southwest of Weno, the capital of Chuuk State. It is also one of the Areas of Biodiversity Significance (ABS) stated in the FSM Blueprint for Conserving Biodiversity with an ABS size of 665.20 square hectares. An aquaculture feasibility study, also funded by the European Union and done by the Marine & Environmental Research Institute of Pohnpei (MERIP), was recently completed to support alternative income generation. Parem is now the first to have a locally managed sponge farm that will hopefully provide for financial benefits. The long-term outcome for the entire campaign is to establish four additional LMMAs in Chuuk

CCS mission statement:  
*Protecting and preserving Chuuk's natural resources to sustain community livelihoods by working with community partners.*



lagoon. LMMA sites are based on interested community-based organizations that have already submitted concept papers to our small grants program, which is also housed by Micronesia Conservation Trust. CCS and appropriate government agencies continue to provide assistance for the



development of their management and monitoring plans, and survey trainings. Making change happen little by little, through community involvement, is our thoughtful approach to begin combating one of the largest issues facing Chuuk's natural resources. ■

# Man and Turtle

*in the Central Caroline Islands*

WORD BY MIKE MCCOY, LINO OLOPAI & ANDREW RAPO; EDITED BY PETER HOUK



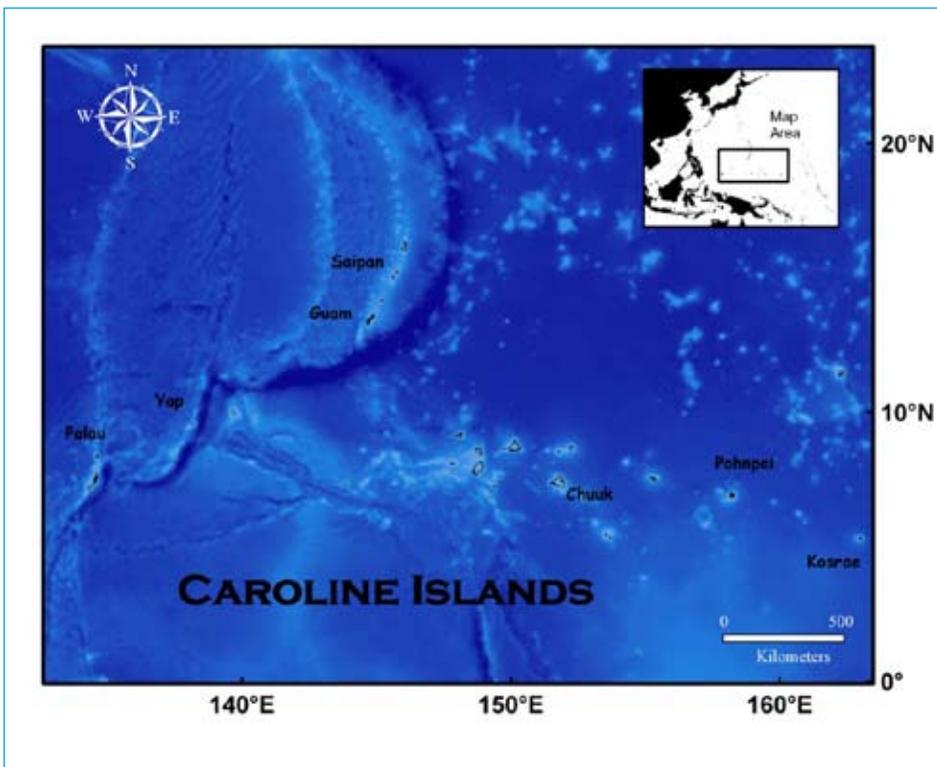
*(Above) Advanced technology used to harvest turtles in Yap State; such tools surfaced in the 1980s, providing an alternative to traditional methods. Photo courtesy of John Starmer.*

Stretching from 131° to 163° E, the Caroline Islands comprise a series of high volcanic and low coral islands and atolls, encompassing the political boundaries of the Federated States of Micronesia (Yap, Truk, Ponape, and Kosrae) and Palau. The easternmost boundary is represented by the high volcanic island of Kosrae, while the west is bounded by the small coral island of Tobi. The oceanic region represents a vast 3.4 million km<sup>2</sup>, however the shallow-water coral habitats are merely 8,546 km<sup>2</sup>, and land only makes up 1,193 km<sup>2</sup>. Sprinkled throughout this expanse of ocean are a few uninhabited atolls and islands that serve as nesting beaches for green, and to a lesser extent, hawksbill turtles. While turtles represent a major part of the diet, culture, and traditional knowledge for outer island societies, limited information exists regarding their population levels and life history, and less of their ability to withstand current exploitation.

The inhabitants of the Caroline Islands arrived many centuries before the first Europeans. They had already developed a culture and society that was based upon exploring remote parts of the



(Above) Turtles brought back from West Fayu in 1972 being prepared for cooking on Satawal by Steven Annenik, also known as “Recho.” Photo courtesy of Mike McCoy.



The Caroline Islands (*islas Carolinas* in Spanish) are a widely scattered archipelago of tiny islands in the western Pacific Ocean, to the north of New Guinea. Politically they are divided between the Federated States of Micronesia in the eastern part of the group, and Palau at the extreme western end.

Pacific by traditional canoe. Whether voyaging for discovery or due to social pressures, the region was well understood and founded by the time the first Spaniards arrived in the sixteenth century. While turtles were most certainly seen and eaten by early visitors and inhabitants alike, we can only speculate on their numbers as little detail in the literature of the early explorers exists.

Since the 1970's significant turtle nesting activities have been identified on small atolls and islands such as Oroluk, Pikelot, West Fayu, Gaferut, and Helens Reef. Most of these islands do not have a freshwater supply, and thus, are uninhabited for the most part. Due to their isolation from consistent human pressure these islands are often referred to as “resource” islands that are frequented by fishermen from other Caroline Islands. Traditionally, turtle harvesting on these islands was limited by the catch methods



(Above) Two participants in the 1972 turtle conservation work at W. Fayu preparing to tag a flipper during the summer of 1972. The two individuals are Andrew Rapo (red thu) and Louis Recheilam, also known as “Matol,” is to his left. Photo courtesy of Mike McCoy.

and the small canoes used to transport them between islands. While resource conservation has always been an integral part of Carolinian culture, traditional conservation was augmented in the early 1970’s by a Peace-Corps sponsored turtle hatchery program on West Fayu. Despite the wealth of local knowledge regarding how to catch the turtles and their seasonal nesting behavior, some of the basics life-history characteristics were better understood through work at the West Fayu turtle hatchery. Here they showed that 58 to 60 days were required for hatching. This opened the eyes of many people.

Andrew Rapo, native to Satawal, worked for the hatchery protecting the turtle eggs and newly hatched turtles until they grew enough to improve their chances of survival in the wild. Rapo reflects how the enhanced conservation efforts led to increases in turtle populations

in the mid to late 1970’s, however the hatchery only lasted about five years. He estimates that turtle populations remained stable throughout most of the 1980’s, however, a declining trend has been evident since then.

In the 1980’s technology began to improve; harpoons and nets started to become more available, and large ships from the main islands would

often come to collect turtles for sale. Interestingly, the amount of turtle being caught by the outer island so-

cities has remained relatively stable through time, the perceived decreasing population trends are apparently being offset by the advances in technology. In the case of Lamotrek Island, 64 km west of Satawal, a diesel-powered skiff was purchased in the mid 1980’s with funds granted by the District Legislature. In the ensuing years, the vessel reportedly

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*“Ultimately, management of this influential resource lies in the hands of the ~3000 inhabitants of the outer Caroline islands, rather than with the ~90,000 residents of the main, urbanized islands.”*

---

travelled to the atoll of Olimarao in search of turtles, and to Satawal for trading and social visits.

During the same time frame on Oroluk atoll, western Ponape, the inhabitants built a stone holding pen, where turtles would be placed, awaiting a government field trip ship to transport them to cargo to the main islands for trade and sale. Even private ships originating from Chuuk have been seen harvesting as many as 50 to 60 turtles for transport and sale in the “cash economy” found on the main islands. To put this into perspective three journeys using traditional canoes to get turtle on Pikelot in 1978 returned to Satawal carrying 18, 10, and 11 individuals. Another trip in the same year to West Fayu returned with 11 captured turtles. Each traditional canoes can only carry between 2 to 6 turtles, and thus, it seems logical that canoe travel provided a buffer against exploitation.

Today, information regarding turtle populations, migrations, and even genetic lineages, based upon DNA evidence, slowly continues to develop.

A growing body of evidence confirms that turtle populations are not “unlimited gifts from the ocean,” rather their slow growth rates and long-lived adulthood translate into an easily over-exploited resource. While this has long been inherently understood in traditional resource conservation practices that are part of the Carolinian culture, today’s generation has less respect for traditional ways and the chiefs who institute them.

But how do local harvesting practices compare with external pressure associated with ship-based poaching and the by-catch of the tuna fishing boats? These answers remain unknown.

Yet, there are several examples where strong traditional conserva-

tion mechanisms remain in place today, and turtle populations are well managed. In the case of Ulithi Atoll turtle harvesting is strictly controlled by a traditional chief who decides who, when, and how to harvest the resources for the benefit of the people.

Over the past 5 to 10 years turtle tagging, tracking, and genetic sequencing programs have begun to form roots. The current goals are to use the turtle tag and recapture data to estimate growth rates as well as population sizes. The tracking data are mostly being used to understand the migration patterns (seasonal or other), and the genetic sequencing data are being used to estimate the identity, range, and size of individual populations.

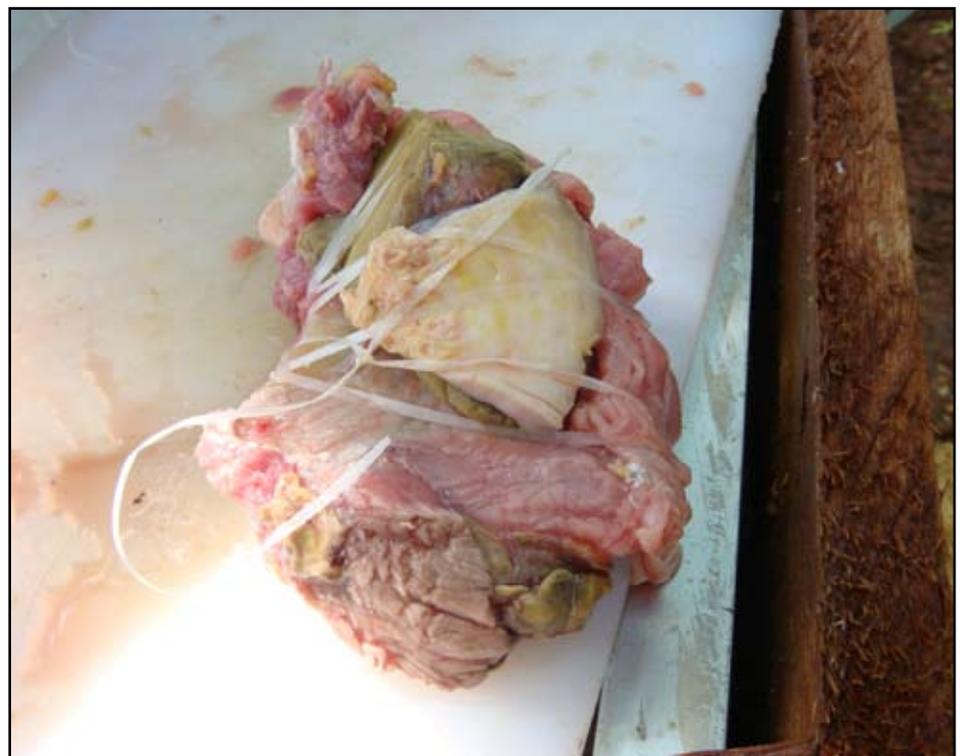
The cumulative analysis of these data will help to understand the current situation in the Pacific. A recent sea turtle workshop by global scientists suggests four paths for

success: 1) protect all nesting beaches, 2) reduce the by-catch of turtle in major coastal fisheries programs, 3) establish consistent policy actions across the Pacific, and 4) encourage sustainability in traditional uses.

Efforts at conservation should be made with the people of the area firmly in mind and that assistance should be given to enable them to better understand the resource. Ultimately, management of this influential resource lies in the hands of the ~3000 inhabitants of the outer Caroline islands, rather than with the ~90,000 residents of the main, urbanized islands. Yet, the challenge presented must be addressed in the very near future if turtles are to remain a viable part of the island ecosystem.

There is a good chance that without adequate stocks of turtles, the canoe voyaging tradition would suffer, and with it an important component of island society. ■

*(Below) Turtle meat, a popular regional food source, continues to be harvested throughout Micronesia and the Pacific. Photo courtesy of John Starmer.*



# From Catch to Kitchen

## FISH LUAU SOUP

Contributed by Sam Sablan

- 1 lb. Parrot Fish Fillet, squared chunks
- 8 oz. Onaga or Mahimahi
- 8 oz. Mussels, half shell
- 8 oz. Ham, medium dice
- 1 large Sweet Potato (Purple), Peeled, squared Chunks
- 1 bag Fresh Spinach or 1 sm. Box of Frozen Spinach
- ½ Yellow Onion, diced
- 3 Cloves Garlic, minced
- 1 Tablespoon Olive Oil
- 1 Tablespoon Dried Oregano
- 1 oz. White Wine
- 2 Tablespoons Worcester(?) Sauce
- 2 Tablespoons Tabasco
- 3 whole Bay Leaves
- 2 cups Chicken Stock
- 2 cups Coconut Milk
- 8 oz. Butter
- 8 oz. Flour
- Salt and Pepper To taste

### Method:

To make a roux, melt butter in pan and add flour. Continue to stir and cook for 2 minutes, set aside.

Heat large pot and add olive oil. Sauté Onions, garlic, and black pepper for 3 minutes. Make sure there's no color. Add prepared roux and slow cook for 1 minute. Add white wine and cook for 1 minute. Mix in ham, sweet potatoes, dried oregano, bay leaves, and Chicken broth and bring to a boil. Add mussels.



Bring to a boil again and skim off scum (if any) and discard. Bring to a simmer and add Worcester sauce, Tabasco, salt and pepper to taste. Add fish, coconut milk and spinach. Check for seasoning. Simmer for another 3 minutes and remove from oven to prevent further cooking. Check sweet potato cubes for doneness before turning off heat.

Tips: Soup should be as thick as pureed soup but not as thick as chowder. Add a little broth at a time for thinning or more roux for added thickness. Soup thickens as it gets colder. Reheating soup will bring it to desired consistency or if needed, you may add broth and seasoning.

Serve with Grilled Bread and garnish with sprinkles of parmesan cheese and red chili flakes.

## WORKING WITH *THE MICRONESIAN FISHING JOURNAL*

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# Sustaining Livelihoods Supporting Conservation

BY SIMON ELLIS

The Marine and Environmental Research Institute of Pohnpei (MERIP) was originally founded as a not-for-profit corporation in the FSM in 1997 with the goal of providing education and income generating opportunities for rural Micronesians. The organization ran a number of community-based extension and aquaculture research and development projects and was also used for teaching students in the Ponape Agriculture and Trade School (PATS) marine science program. In 1999, MERIP was incorporated into the PATS administration and was later re-established as a stand-alone NGO in 2005.

The current focus of MERIP's activities is to work with individuals and families in rural, coastal communities to develop small aquaculture businesses. Most of this work takes place with communities in Pohnpei who are involved with the Marine Protected Areas program, as a means of income replacement from decreased fishing activities. The Conservation Society of Pohnpei and Pohnpei State Division of Fisheries and Aquaculture are major collaborators with MERIP in these activities. MERIP also has strong links with the University of Hawaii system and other regional organizations working on sustainable development and aquaculture issues.

The two main areas of product development at MERIP are: corals, giant clams and other species for the

MERIP Mission Statement:  
*"To promote sustainable development and livelihoods for Micronesians, through natural resource conservation, and to research, teach, demonstrate and transfer technologies that allow Micronesians to improve their lives while maintaining core traditional values and minimizing impact to the environment."*

(Above counterclockwise from left) Divers harvesting clams; propagating corals; MERIP's facilities. Photos courtesy of MERIP.

marine ornamental trade; and sponges for the bath and beauty trade. Thanks to innovative collaboration between private, non-profit and government agencies, this work is beginning to pay rewards to grass root farmers.

MERIP is now working with 13 local farmers to produce 5 species of soft and hard corals. Using a simple form of contract farming, MERIP provides substantial technical and marketing assistance to farmers, while maintaining their own central farm that helps to guarantee consistent production. By expanding the product line, more farmers can be supported and overall production can be increased. It is hoped that more than 30 farmers in Pohnpei may eventually participate in the program.

In addition to coral farming, MERIP also promotes farming of the Micronesian wool sponge (*Cosinoderma matthewsi*) with MPA communities in Pohnpei. 19 community members now run simple farms using a similar



contract farming method to that of the coral farms. Grow out time for the sponges is 2-3 years but they require little maintenance, allowing farmers to engage in other traditional and income generating activities. Nearly all sponges are currently sold through a fair trade organization in New Zealand called New Zealand TradeAid. In order to be able to sell sponges through this conduit, MERIP had to qualify the sponges as a sustainable, fair trade item, thereby ensuring greater returns to the farmers for their product.

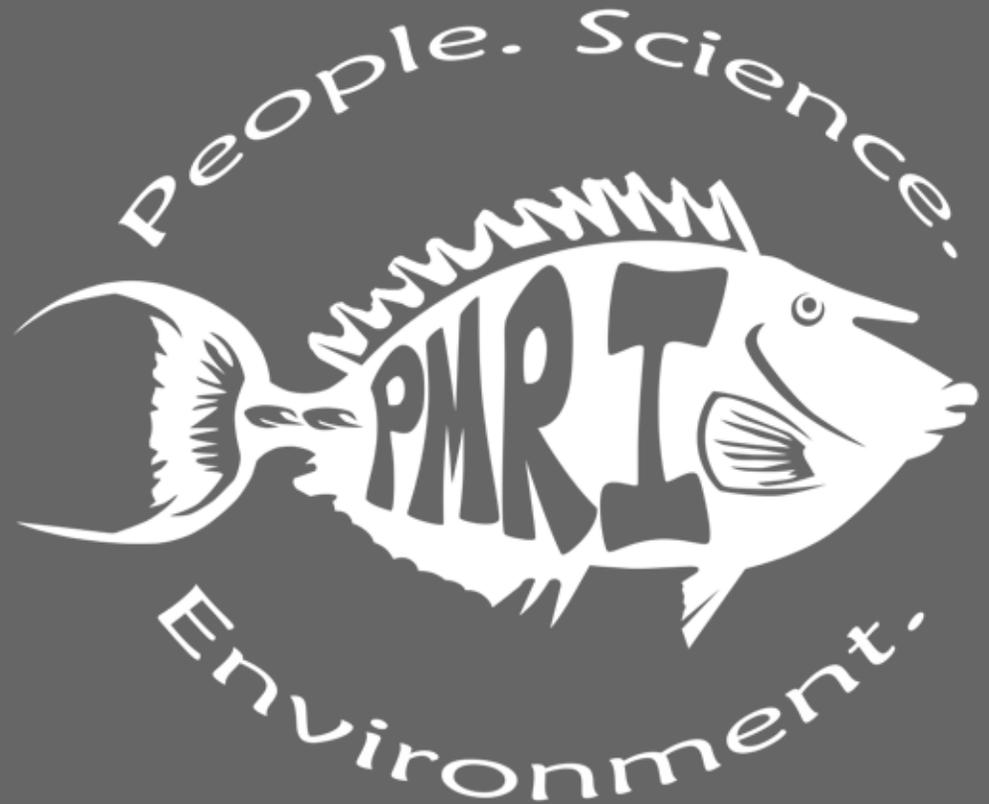
MERIP has received funding from many organizations to support its work. Some of the recent donors are the European Union Conservation and Environmental Protection Programme (EU CEPP) managed by Micronesia Conservation Trust (MCT), United Nations Micronesia Small Grants Programme, United States Department of Agriculture and the David and Lucille Packard Foundation. ■

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It is dedicated to working in partnership with Pacific nations, states, and communities to assess, monitor, and manage their precious biological resources for sustainable use.



# ENJOY PONA POINT, ROTA

CNMI  
MARINE PROTECTED AREAS



## WRITE FOR THE *JOURNAL*

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Contributions can be as simple as photos of your catch or as detailed as a transcribed interview. Mainly we are looking for stories (600-1200 words long) about fishing, cultural importance of fishing, management, community efforts, history, why Uncle Semo is the best fisherman ever, and related topics.

### FORMAT:

Electronic submissions are preferred and may be emailed to [jmf@pacmares.com](mailto:jmf@pacmares.com).

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